



**Communicable Disease and Epidemiology News**

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**IN THE APRIL 1999 ISSUE:**

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- **Pertussis: Update and Correction**
- **Steady as She Goes: TB Control in 1998**
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**Measles & Mening**

**Measles:** A laboratory-confirmed case of measles occurred in a nine year-old Bainbridge Island resident who traveled by airplane on March 22nd, the day of symptom onset, from Milan, Italy to London (British Air) to Seattle (American Airlines via Chicago). The child had previously received one dose of MMR vaccine. This case was recognized by an examining physician and was hospitalized with respiratory isolation precautions. Notification of airline passengers and airport personnel was initiated with the help of the Division of Quarantine. In early April, a secondary case of measles occurred in an adult passenger who was on the Chicago to Seattle flight. This individual was hospitalized before the diagnosis was recognized resulting in an infection control investigation and contact notification. This person also had multiple exposures in King County while communicable. Although the majority of these contacts have been notified and screened, **please be aware of the potential for measles cases in King County at this time when evaluating persons with fever and rash.** Hospitals and clinics may take this opportunity to ensure adequate documentation of measles immunity for all employees and immunize those who are susceptible. The diagnosis of measles must be confirmed by laboratory testing for serum measles antibody. However, please do not wait for laboratory confirmation to report suspected measles cases.

**Meningococcal disease:** Since April 4th there have been two unrelated cases of meningococcal disease, serogroup C, among ninth grade students at Tahoma Junior High School in Maple Valley. School officials and parents have been notified of the signs and symptoms of meningococcal

disease and chemoprophylaxis has been administered to family members and close contacts of cases. **Please be aware of the potential for meningococcal disease when evaluating patients with febrile illnesses, especially among students at Tahoma Junior High School.**

Please call the Epidemiology Communicable Disease Section at 206-296-4774 to report suspected measles and meningitis cases and for information on diagnosis and management of contacts.

**Pertussis Update**

From January 1 through April 9, 1999, 297 case reports of pertussis have been confirmed. The rate of reporting appears to be declining, although new cases are reported each day. Over 70 King County schools and child care programs have had at least one reported case. Providers interested in obtaining free specimen collection kits for DFA testing and culture may call the Seattle- King County Department of Public Health (SKCDPH) Laboratory at 206-731-8950. More information on pertussis recognition, treatment and reporting, is available at the State Department of Health's website: <http://www.doh.wa.gov/Publicat/pertussi.pdf> (downloading the information requires the Acrobat Reader).

**Correction**

In the March issue of the Epi-Log, we indicated that children less than 7 years of age should get five doses of DTaP/DTP vaccine at ages 2, 4, 6, and 12 to 15 months, and at age 4 to 6 years. The fourth dose may be administered as early as 12 months of age, provided six months have elapsed since the third dose, and if the child is unlikely to return at age 15 to 18 months. The *preferred* timing for this dose is 15 to 18 months of age.

**TB in 1998**

The incidence of tuberculosis (TB) in Seattle-King County (SKC) in 1998 was 7.0 cases per 100,000 population, compared with 4.7 in Washington State. Although the number of 1998 cases increased slightly in King County compared to 1997 (116 and 113, respectively), the rate remained the same. In fact, the reporting of TB has been relatively stable for the past nine years. Seventy-seven (66%) of the 1998 cases were male and 39 (34%) were female, a rate of 9.7 and 4.8 per 100,000, respectively. The age range was <1 year to 90 years. The incidence rate of TB in Seattle residents (16.8) was six times that of King County residents outside of Seattle (2.7). Rates were highest in downtown Seattle, the neighborhoods immediately east and south of downtown Seattle, Georgetown, and Rainier Valley. These seven zip codes, containing 7% of the residents of SKC, were reported as residence of 46% of all TB cases. Those neighborhoods had an aggregate rate in excess of 45.2, over six times that of the county as a whole.

Six (5%) of the 116 cases died. Two of the fatal cases contracted TB during the late stages of HIV infection and died due to the combined effects of the two diseases. Two died of unrelated causes, one died of a syndrome of rapidly-progressively pneumonia (with pulmonary TB diagnosed post-mortem), and one of advanced pulmonary TB.

Birth in an area of high TB endemicity was again the most important risk factor for TB among 1998 cases. Seventy-eight cases (67%) were born in 16 countries outside of the United States. Twenty-nine immigrated from southeastern Asia (20 from Vietnam), 26 immigrated from the countries of Asia and the Pacific islands (20 from the Philippines), 11 from eastern Africa, seven from the Americas, and five from eastern

Europe and countries of the former Soviet Union.

Among other known risk factors, 25 patients (22%) were homeless; nine (8%) had HIV infection; and four (3%) were contacts of currently active TB cases. Reporting of TB associated with homelessness and HIV infection both increased sharply in 1998 because of a cluster of at least six TB cases in HIV-infected men who were residents of a Seattle downtown shelter and a residence facility.

Seventy-six cases (66%) were pulmonary, 33 (28%) extrapulmonary, and 7 (6%) both pulmonary and extrapulmonary. Among 75 culture-positive pulmonary cases, 47 (63%) were sputum smear-positive. Among lymphatic cases, 14 of 16 (88%) were foreign born, with a median age of 33 years.

One hundred and one cases (87%) were culture positive, and all of those cases had drug susceptibility testing performed. Seven (7%) were resistant to isoniazid but susceptible to rifampin, 1 (1%) was resistant to rifampin alone; none was resistant to isoniazid and rifampin. Six (75%) of the eight isolates showing significant drug resistance (to either isoniazid or rifampin) were from foreign-born cases. The proportion of foreign-born culture-positive cases with drug resistance was 9% (6/65) compared to 6% (2/36) in US-born cases. The rate of resistance to TB drugs is an important indicator of the quality of TB control in a community. The overall rate of drug resistance, and that of multidrug-resistant TB

(MDR-TB), dropped sharply in SKC in 1998 after remaining stable for the past 10 years. For the first time in many years, SKC does not have a single patient with MDR-TB on the case register. The most recent MDR-TB case was discharged from clinic in March of this year after 4 ½ years of treatment, including partial pulmonary resection, at a total cost of more than \$500,000.

During 1998 the TB Control Program received 353 reports of suspected TB cases. Washington Law requires that such patients be reported because important public health interventions, such as investigation of contacts, may be indicated prior to verification of the suspected case. The trend of reporting suspected cases has increased over the past several years as medical practitioners have regained familiarity with TB as a clinical entity. In SKC, fewer than one-third of reported suspect cases became confirmed cases in 1998.

The stable incidence of tuberculosis in SKC and the predominance of cases in foreign-born residents indicate that creative and aggressive measures may be necessary to bring about a further decrease in the incidence of TB in our county. Prevention of TB in persons who immigrated from high incidence areas is best accomplished through a community-based screening and preventive therapy program that includes not only the public health TB Control Program, but also a coordinated network of clinics, managed care organizations, and primary medical practitioners who serve the target population. In

1998 our program participated in the drafting of national guidelines designed to address this important new trend of TB in the U.S. Those guidelines will now be used as a template to guide further efforts to reduce the burden of tuberculosis in Seattle- King County.

*Thanks to Charles M. Nolan, MD, SKCDPH TB Control Officer, for this report.*

Epi-Log Online

You can find back issues of the Epi-Log at the SKCDPH website: <http://www.metrokc.gov/health/> by clicking on "Provider Info" or "Publications" on the Essentials sidebar.

Broadcast Fax

The SKCDPH maintains a list of health care providers who wish to receive urgent public health messages. If you would like to be added to our fax list, please call 206-296-4774 or fax 206-296-4803.

Report:	(area code 206)
AIDS .....	296-4645
Communicable Disease .....	296-4774
STDs.....	731-3954
Tuberculosis .....	731-4579
24-hr Report Line.....	296-4782
After hours .....	682-7321

Hotlines:	
CD Hotline .....	296-4949
HIV/STD Hotline .....	205-STD5

<http://www.metrokc.gov/health/>

REPORTED CASES OF SELECTED DISEASES SEATTLE-KING COUNTY 1999				
	CASES REPORTED IN MARCH		CASES REPORTED THROUGH MARCH	
	1999	1998	1999	1998
VACCINE-PREVENTABLE DISEASES				
Mumps	1	0	1	0
Measles	0	0	0	0
Pertussis	169	12	274	59
Rubella	0	0	2	0
SEXUALLY TRANSMITTED DISEASES				
Syphilis	10	0	22	3
Gonorrhea	96	95	260	245
Chlamydial infections	420	268	1009	822
Herpes, genital	58	76	173	182
Pelvic Inflammatory Disease	28	15	71	51
Syphilis, late	7	1	12	9
ENTERIC DISEASES				
Giardiasis	16	14	45	40
Salmonellosis	15	11	43	26
Shigellosis	8	8	15	19
Campylobacteriosis	15	19	47	53
E.coli O157:H7	3	1	8	1
HEPATITIS				
Hepatitis A	10	78	21	178
Hepatitis B	4	3	8	19
Hepatitis C/non-A, non-B	0	0	1	1
AIDS	14	38	40	85
TUBERCULOSIS	8	11	30	32
MENINGITIS/INVASIVE DISEASE				
Haemophilus influenzae	0	0	0	0
Meningococcal disease	1	2	3	8